

SPECIFICATION AMENDMENTS

Please amend page 2, lines 9 through 22 as follows:

~~The object is solved by a method with the steps of Claim 1.~~

~~Advantageous embodiments are the subject of the dependent claims.~~

With the method in accordance with the invention 5,000 metric tons of methanol can for example be produced per day. The synthesis of methanol requires for this a synthesis gas composition with a stoichiometric number of 2.05 and a carbon dioxide concentration in the range between 2% and 3%. The stoichiometric number S_n is calculated by the following formula:

$$S_n = ([H_2] - [CO_2]) / ([CO_2] + [CO])$$

Here the magnitudes $[H_2]$, $[CO_2]$, and $[CO]$ stand for the mole fractions of [[water]] hydrogen, carbon dioxide and carbon monoxide as they are in each case present in the synthesis gas.

Please amend page 8, line 17 to page 9, line 5 as follows:

Remaining impurities in the synthesis gas such as methane, traces of carbon monoxide and argon are washed out in the purification unit D with for example liquid nitrogen by means of a molecular sieve generally known as variable pressure absorption. The products of purification unit D are a pure stream [[from]] for ammonia synthesis gas, which in the case of washing with liquid

nitrogen exhibits the correct stoichiometric ratio, and by application of variable pressure absorption a pure stream of hydrogen. In both cases a stream of all remaining impurities is used as fuel gas for the process ovens. The pressure at which the purification unit is operated lies between 30 bar and 100 bar, and normally at 75 bar when washing with liquid nitrogen and 30 bar for application of variable pressure absorption. If the purification unit comprises washing with liquid nitrogen, then a molecular sieve installation for removal of traces of carbon dioxide and an absorbent connected upstream in the carbon dioxide-free synthesis gas.